Bidt Roehr
Alleum Vineal - Field Lilt
- Asclepias Incarnata
- " Tuberosa. Butterfly weed
- Antennaria Canadensis (Sweet Plant)
- Psoralea
- Pycnanthemum canadense
- Delphinium exaltatum
- Symphoricarpos glomerata. Coffin Berry
- Zigadenus Angustifolius (in River Bed)
- Spiraea salicifolia (Cherry bush)
- Plantago Virginica (Common Plantain)
- Plantago Aristata Grasshoppers - Dusty little Plantain
- Scirpus Lacustris (Pond)
- Plantago cordiformis Common Plantain (Low Prostrate)

- Asclepias Syriaca (common milk)
Rhus Toxicodendron
- Convolvulus repens.
- Cactus fragy (on Rocks)
Ambrosia Artimisifolia (Prairie, in bottom)
Rhus Viridiflora (Prairie Bot.)
Rosa Lucida - " "
- Amorpha Fruticosa " "
Arundo Canadensis (Found the
(rear (grass.)
Xanthoxylum Fraxineum
Prickly Ash

Fragaria Virginiana
wild Straw Berry

Silene Stabra - (Sigh)
Syst Pandria Virginica

Cicuta Americana
Astragalis Caryocarpus.
(Prairie Plant)

the Yellow flower with a
very long Tubular corol found
under the river bank just
above Mr Scarboroughs is
the Evening Primrose

Robt. B. Haines
care
(Bacon & Hollowell
Hatters Phila)

Robt B Haines

Herman Town

Philadelphia Co.

Sun 29th June 1828
Visited seen in Such great
numbers in the Tees along the
St. Peters where we came out
of the creek to, near of
Ephemeral family. They
take no food. die on the
day of Metamorphosis —
in another con, a Larvae
stay live from one to 3. years
in water. The continuation
of the species the only function
they perform ——
water full of this cast off
Exuvae

Titel K.

~~Amphicarpa~~ Pitcher Leaf

Amorpha — Lead Plant

Psoralea — Prairie Turnip

Smilacina — Sweet pea vine

Psoralia Esculenta - food Indians

Sagittaria Sagittifolia

Lobelia — (Asclepias Syriaca

Red root (Lunaria) Strophostyles

Hartwrightia (Polygonum

Cornucopiae (Asclepias Syriaca

Cat. Tail (Typha Angustifolia

Sedge

Grass

Sept 18

A1

Trochilidae Archilochus

after going about a mile below we saw Geese
quite swimming in the river. a shot from one
of the party wounded one which being unable to
fly swam on down the river so that it was
soon caught. a little further on a rabbit was
shot on the Right shore and while one of
the men was going to get it. Some more
wild geese came flying over and Provencalle
brought one down on the wing so that in
a few moments we had Killed 2. Geese 1.
Rabit and a duck without leaving the boat
a short distance below this another
duck was seen but swam away unharmed
I mention these facts to show how
plenty game is on the Mankato. Buffalo
are said to be plenty here during the winter
but they go higher North in Summer. There
are no Squirrels except a very few small
Red ones. the Rabit Killed today was the
first one Seen by any of the party.
at Sunset Nearly clear mind N.W.
1. Temp. 72. Camp on Right about 30

miles from our last nights camp
6 oclk A.M.
Tuesday June 27. Nearly Clear Wind W.N.W
3. Temp 56. dined on the left shore at 12.
oclk. A.M. nearly clear. Wind W. S. W. 3. Temp 66°
Saw here in flower Rosa Espistora. also the
Amorpha fruticosa, it is however an abundant
plant Calon this river. (it is the same plant found
along the river bank below town at ourstown
supposed by Dr. Williams and myself to be a spe
cies of Locust) Provonalls Killed three wild
geese this evening at one shot and one at and
Baptiste wounded a fine deer from the boat but
it made its escape. two shots were fired at an
at 5 oclk
other swimming the river with like success. Camped for the night
On the Right shore having made about 27 m
To day. the river having fallen since we went up
we had some trouble getting over rapids, but as
we not compelled to make any portages. our
Camp is on a low bottom opposite a steep
cliff of drift. the bottom is thickly covered
with ferns & Equisetums trees. cottonwood
Sandbar, Willow white walnut and the

(Prairie Dog)
mandrake. Paridklystis. sweet sp. corns
first hornbeam I have seen on this river
on passed through the part of the county
very
today where the large cotton trees and Blk
walnuts are found. at 6. oclk P.M. Clear
N.W. 1. Temp 63°

Wednesday June 28th Clear. wind S. Temp
at 5 oclk A.M. 48°. Started at 8¼ oclk A.M.
dined at 12. M. on the left shore on the
edge of a Prairie just above the mouth
of the Marlowan. Clear. Wind W. Temp
74° as the river makes a bend here we conclud
to walk across the mouth of the Watar as we
passed through the prairie we saw a great
number of Pritty lillys. Phloxes, Larkspurs
in flowr one sp. of the latter (Delphinium
also Esoratia Sinuata
virescins) was very pretty being near 3 ft high.
The view from the junction of the two Rivers
to the S. W. of rolling Prairie with groves &
scattering trees is beautiful.

Camped at 5. oclk P.M. on the right at the
and about 12 miles from the mouth
foot of the long chain of rapids. Only about 40
feet back of the camp, which we got on the

[illegible] South River is a cliff of Sandstone 30 ft
[illegible] 60 feet under
[illegible] we are not low enough down to see the
Limestone. a few hundred yards above our camp
on the other Side the river throws a fine Spring
[illegible] on the East South River. At Sunset Therm stood at
Temp 70. Saw Shot at a Siwash Saw another
[illegible] Day from 29th 5.0 clk A.M. clear
Wind S.W.2. Temp 60° Some of the Crew of the
Capsized all night. Clear on the north but Comp
[illegible] North Mountains and Stopping E.S. rapids.
[illegible] all morning the night 4.4 miles cy pass
[illegible] Lakes at 9 oclk. detained frying Snow -
at 11 oclk rain with thunder Lightning. at
12 M. Arrived at the Mouth of Leisicas River. Saw
[illegible] above this when some Siwans had camped
Saw us went up. this and one old camp near
our Station 87 Miles up. was the only Siwash
Camp we Saw on the Mackenzie above Siwash
although the Country is abundant. Wind South
E. Temp 81° Cloudy with occasional hot Sun
[illegible] Mouth of Mountain

and hoisted up the R. Peters at 2.0 oclk P.M.
having been detained keeping the Crew of Siwashes
about 4 Miles above the mouth of the river to
our camp when a Small hunting party of Siwash
of the band we Saw at Trevors the night before
encamped on the R Shore as we passed the
Sight was of the young Siwash who was swimming
about in the river first caught sight of us, and
probably supposing us to be a war party of whites
=faways, gave the alarm and some of them
when the whole party came out and Seeing
ourselves, asked us if we did not intend to buy
some Venison. as we were beginning short of
provisions, and having enough by us for
2 days rations to last us to Little rock, a
trading post of Mr Sibbys, whom we expected
to replenish, we replyed strongly Personally
that if they would take labour for some we
would trade with them to, which they agreed
and we run on up a few hundred yards
above and waited. on a few minutes the
Old Siwash, with an old Squaw and

the friendly Indians. A party man & two

a young Indian came up in a canoe with
some fine beaded moccasins for which he gave
black specks on return. They told us that
the Chippewayes had killed two americans
down near the forks and that Capt. Eastman
had demanded the murderers and the Indians
had agreed to give them up. So that all
war appeared to be over.

as we rode with the Indians around
some time we found it most way to pitch our
tent not more than a mile on the R[iver] s. bank
and collected a few bits of shells, chips
bones, shrubbery and other accumulations
of drift wood. Cloudy in the E. clear in the
west N.W. Lunch 1[o]. no work saw some
on left the mouth of muskata

Thursday June 30. Clear. at sunrise N[orth] 2 Thermo
64° after prayers eat of stewed elk - took N.W.
course up river with low wooded land
bottom on the left (various species of trees)
rising prairie - saw elk today some 2 or 3
hundred yds from the river - in course

to be found on the river bottom - there are
likewise several species of trees - the
American poplar, cotton wood tree, the
Canada (in which Virginia & Carolina) grow
some to a good size, which the Indians use
for canoes, & the [illegible] of Kentucky
Tennessee & all considerable in the Ohio
as I saw many of these Pirogues
Arkansa (in Florida) is the form generally
at water edge - with on the [illegible] smoothly cropped
with grass of two or three inches long
occasional grove of trees and some bushes
scattering about. Ground 12 Feet above
level. Large flying clouds from N.W.
Wind N.W. Lunch 74°.

about 2 P.M. arrived at the mouth of muskata
river - it comes in a large rapid current
=/ in the middle of the river on [illegible] and
running large [illegible] upon the [illegible] of which
a number are on the edge of the river
3 P.M. observed [illegible] work in the
[illegible] observed Arkansa [illegible] 3. Thermometer
[illegible] 90° [illegible]
left [illegible] encamped [illegible] on the other

side of bottom near a mile wide, and timbered with Cotton wood Ash sycamore, Boxelder Hackberry &c. at 7 o'clk P.M. Camp 58.

Saturday July 31st Clear fog on the river. Wind N.E. Start after breakfast to find a more comfortable road with S. Banks. Arrive at 7 o'clk A.M. Table 5 miles pass and a fine rapid creek. See some coal frequently the 150 feet above water level all along on the S. side. 2 to 3 miles back from River see Plains & few Scattering trees on the bottom between river & Plains generally timbered by a heavy growth of cottonwood timber. Ivy arrica Apios &c. &c. Grape vine plenty along shore. Some bank caved in by the Indians as usual. Bushy trees generally along. To the mouth of Judith at 10½ o'clk. Here saw some Indians along the R. Some bad Cuts and Clay Bluffs. Some Coal Banks on Plains. Hills seen on each side. Have seen since no Rocks. At the mouth of Judith Wind S.E. Encamp 1½ miles above on R. bank. Camp on bottom. Grass & Wood. Encamp on left bank opposite the mouth of Judith. Plenty of Timber on the bottom. Some Cedar on the hills. Saw Elk

when the same sand rock (ground, point) occurs above, as reported. Last time it formed a new feature being so near the mouth of the Judith R. Sluiskowit R. not long enough to take. The mouth of the Judith may be accurately fixed by Observation at the time the granite rock some 40 ft above the present level. Other than a few of granite boulders in the middle river. after passing the bluff a mile /opposite the mouth of Judith we have shore and low elevation of some 60 feet, covered with short grass Country. On the S. side the river shore is a wide bottom covered with cottonwood (populus angustifolia) Box elder, Ash, Sycamore, Willow, Hackberry, Choke cherry, Service berry &c. from this to the mouth of the Musselshell R. which we arrived at 4 o'clk P.M. The River is more narrow and much more rapid. about 2 miles above the mouth of Judith R. [illegible] miles Bluffs of the Sandstone mentioned above are caused by a bluff on the same some 60 feet high of hard red rock of homogeneous texture in strata dipping North at an angle of 3°. after examining it may be the same sand rock underlaying the main Limestone seen at table water. but I am inclined

[illegible] (Explosion Crevice)
[illegible] Indian [illegible] Smaller than the
[illegible] Indian, probably a recent Specimen on the Lower
Cave Range under Apostles) [illegible] This
[illegible] a Wall on the Eastern side of the Inland Creek
Cave about 100 yds from the Entrance on the same
Creek side of Mountain. It is worked under the
Spout and could never have been in any
Watercourse from [illegible] and broken with recent
Implements [illegible] and evidently lightly Comparatively
[illegible] Chipping Ground Stone Implements. 3 Flakes
See Sec Note book
were found with Homogeneous Lydian. 4 as
Heads also Scrapers &c Soapstone Pencils. Showing
no Mica-Pipeclay Quartzite rock like Flint. near
the River where the Finest Flint can be seen It is in
Thin Vertical Sheets beautifully Stripped Stratified
can extend in a more Comfortable Vertically
Stratified all over the Surface of the highest part
of the Hill in Smooth Nodules and Flakes like
Wood Pavement Cost Nothing Some Nodules Quite
[illegible] Chipping Ground Stone Implements. 3 Flakes
See Sec Note book
were found with Homogeneous Lydian. 4 as
Heads also Scrapers &c Soapstone Pencils. Showing
no Mica-Pipeclay Quartzite rock like Flint. near
the River where the Finest Flint can be seen It is in
Thin Vertical Sheets beautifully Stripped Stratified
can extend in a more Comfortable Vertically
Stratified all over the Surface of the highest part
of the Hill in Smooth Nodules and Flakes like
Wood Pavement Cost Nothing Some Nodules Quite

some running streams 2 or 3 Yds Perhaps
from Mouth of Cave. Mr Geary put out the
on R. Side. As usual - surprised to the Natives
Island on the River as he thought - Cave could
be reached on Wicked Creek but find water Cave
Creek Cave is South - ward & long way on the
Side Comfortably Ventilated. Very Cave contains a
Large Stream of rain Flowing & thus strong Cross
Draught open Cave offers an Inland Prospect
Natives reported as Camp-Stream, my Wife & Friends
Cave will repeat. Party had Dinner The Natives
Comfortable returned with the Land as Camp
on account of Breaking Fire - Cave Station - and with
Days Journey - Then only Mouth - Cave Position
Nearly explained.

[illegible] from the Top of Shoulder [illegible]
Fire - Valley of Cave to N.W. Creek to prevent
of Timber & Limestone Big Cave [illegible]
Cave Entrance of Cave Creek Found by the Cave
- Cave Long Range [illegible] Cave Creek Cave
Cave Creek Cave [illegible]

3. Camp 6th at Cave Creek Cave

[illegible] Graham with [illegible] Indians [illegible]
[illegible] and Redbeard [illegible] a short [illegible] Kinsman
[illegible] Mr Hallowell Bar Lyons and Hamilton [illegible]
Custer Edwards [illegible] Sa [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

[illegible] cliff opposite the mouth of Marijon R. and [illegible] the cliff of pierre the ground rises in a South direction at an angle of about 20° [illegible] Saw a species of Cactus on top the rocks differing from the E. opuntia in size & many other respects, it is much more extended [illegible] Cattle of Hungry Town are [illegible] [illegible] Below the mouth of Marijon R. [illegible] [illegible] [illegible]

[illegible] Mr Swinehart left to attend
to his Regimental invited me to dinner which
was very acceptable to us as we had been
without Sugar Tea or Coffee down the
Missouri, and the Savages had every us
were without anything to Eat except
meat and Wild game when we could get
them, for when we reached Omaha I saw a
table Set with a clean cloth and coffee
Sugar Cream, Buffalo meat, Bread &c
we all of course did justice
to the Superintendent cultivates a pretty
good farm, has hay corn growing all of
which object looked quite agreeable Gen
after so many days wandering in the
Wilderness the valley of the St Peters
river here is more beautiful than any
place I have seen it, looking down
it in a N.W. course, Wide wide and plain
bounded by gently sloping hills about
150 feet high on the right we elected
with timber. Those on the left of the
river except along the margin of the
creeks rivers, Prairie, with a few scat-
=tering trees along the left hills. In the
middle of the valley, just above the bottom
of timber, a long row of immense
Mass of granite in Place very much
Like to that I saw above Mouth of
Niobrara Two highest of these masses
(some of which 35 or 40 feet above the
plain) are named just below Running
Water the hills now bound the valley
near the banks of the St Peters
when it was a mighty River at
12. o'clock clear wind S.E. 2. Lunch 77.
at 1. o'clock the canoes arrived and
anchored Got our Dinner from
Indian houses. At Sunset Thunderstorm Wind S.W. 2. Temp 67.
Sitting on the granite Rock. Bright flashes
lightning thunder - hear the wailings of
a poor Squaw over the grave of her
dead Indian

July 5th [illegible] Morning clear. Wind N. E. Therm. 57

Took my national birth day with the most
very grande reveil it is me agreed to give them a holiday
Saw in the granite veins of various size of arenes and
some basalts, many large crystals of feldspar quartz
not shorty. Some gravity trim. One peculiarity of this
granite is that the gravity has a milky colourless
appearance. collected from Pond some fine Limnea
Physeus, filibranchiata and one mussel shell, a beautiful
specimen of Succinea. at 12 P.M. Therm. shorty Lowly wind
N.E. 2. Temp. 77°. at sunset clear wind S. E. 2
Temp. 68°

July 6th Wednesday. Sun rise cloudy wind N. E. 2
Temp 66° P. M. showers rain Many take one of
the canoes and go on a visit to
the Lake your Paris Lake that Lake) Leaving my Waiter
and myself with Boatmen to collect Specimens
of the Lake have made Barometrical observations

[illegible] Lake [illegible] Lake [illegible] Lake [

Town Lots showed in heavy folds of rain during the forenoon Wind variable Clouds to the North & West N. Mercury fell to 67°

At 6 o'clock P.M. Cloudy Wind North W. Temp. 67° [illegible] with showers

Morning July 4th Wind Clear Temp 68. At 12 o'clock M. Wind Clear. Wind N.W. Temp 67°. Outside Skirts of the Valley Temp 71. Sun set, a few clouds in S.E. and in the west. Wind N.W. Temp 68°

Tuesday July 5th Wind N.W. Temp 68° Sun set last night at 7 o'clock & 2 minutes at 12 o'clock Tuesday Wind N.W. Temp. 69° Had a slight shower of rain about noon & after the shower and evening Light Cloudy with Cool breeze N.W. Thermometer 2 ft. from ground at 12 o'clock M. Cloudy in South. Clouds in the west. Before the sun set a beautiful rainbow formed in the Valley in the East a few thin clouds with Valley in the East a few thin clouds with Cloudy in the West Land Breeze fade away in the evening Wind N.W. Temp 68°

Wednesday July 6th Wind N.W. Temp 68° Sun set last night at 7 o'clock & 3 minutes at 12 o'clock Wednesday Wind N.W. Temp 68° Light Cloudy in the West Land Breeze fade away in the evening Wind N.W. Temp 68°

Thursday July 7th Morning Cloudy Wind N.W. Temp 68° Sun set last night at 7 o'clock & 3 minutes at 12 o'clock M. Thursday Wind N.W. Temp 68° Light Cloudy in the West Land Breeze fade away in the evening Wind N.W. Temp 68°

Friday July 8th Morning Cloudy Wind N.W. Temp 68° Sun set last night at 7 o'clock & 3 minutes at 12 o'clock M. Friday Wind N.W. Temp 68° Light Cloudy in the West Land Breeze fade away in the evening Wind N.W. Temp 68°

Saturday July 9th Morning Cloudy Wind N.W. Temp 68° Sun set last night at 7 o'clock & 3 minutes at 12 o'clock M. Saturday Wind N.W. Temp 68° Light Cloudy in the West Land Breeze fade away in the evening Wind N.W. Temp 68°

[illegible] mind N.E. Temp 64°

Thursday July 26th Sprinkling rain at 8 A.M. wind N.N.E. Temp 64° At 10 Temp 69° Cooled in the mind 5 P.M. Temp 70

Friday July 27th Cool & rainy wind N.E. Temp 65°. 12. Raining wind N.E. did not take temperature on account of rain. A Small Still running wind N.N.E. Temp 67. rained incessantly since 12. Oclock

Saturday July 28th a South drizzly raining all night wind N.E. Temp 66. cleared off at 12. wind N.W. Temp 68. Sunday 29th Went all the forenoon from Thomaston to Rockland on our boat to get us down and make Bar. Sometime all passengers belonging to the mouth of the St Georges and also called at the additional pumkin on our leaving at Thomaston, also a little smooth, a little fog to some extend on a Steam Boat at Long Island Bay returned, after we had come within one or two miles of the first one stop at

a Cliff on the R. B. where the Rocks exhibit
horizontal Strata. Road Serpentine all the
Way to the Summit of the Mountain. The Prospect
from this Mountain is Grand & Romantic in the
Extreme. The Mountains appear piled on Mountains
as far as the Eye can reach, Some of which are
Covered with Snow, and Others Clothed with Pine
On Descending found at the Foot I came to, Passing the
Road to Mr. Hunt's Plantation to the Left. Road
Thro' Some Pine Barrens & Cypress Swamps. by
Three oClock PM Passed over the Ground Hog
River, and on Three Miles a Steep Ascent
Gently to Bonaparte Creek, Road to the Left leads
to Mr. Hall's Plantation. Road Thro' Pine Barrens
& Hammocks, with Swamps & Ponds of Water
Continued for the Night on the Banks of the
Creek. Road about Three miles below the
Village of Bellair. Encamped Thermometer 65
Course this day S. 60 W. Distance 15 Miles
Tuesday 5th. Started at 8 oClock. 2 Miles
at a Settlement on the Left called Rat Rock from
a large Granite Rock, which lies on the Bank
near the Road, Crossed by Mr. Mitchell and

before Day we were Roused from the Ground by the Noise
of Horses Feet. Some Indians had Crossed the River
with Horses for the Use of the Army. Road
with Some Pine Barrens and Hammocks. Encamped
(See Sec 2) 2 Miles from the Bonaparte Thermometer
from Sunrise to the Noon 84. Mr. Anthony a Merchant
died the State of Florida Territory and the Union
Crossed Creek Hammock = Thermt 69° Some of the
Trees Grow on the Hammocks of the finest Kind
Took Lunch at the Mineral Spring Road Lies Round to the
Left So as to Cross Creek Bridge. Owing to the
Casting of the of river we are at the mouth of St.
Croix Crossed it & when the Magnesian Limestone
Shows itself in the Bed & Banks in Small Rocks
Exhibit 2 or Three miles above the Boundary
Candelon Runs some thirty or 40 feet up the
Cliff. Arrive at the Mouth St. Croix at
4. oClock Cross it & Encamped at 5
oClock 3 Miles up the St. Croix on the
Right. Wind S. Thermt 66.
Table Land & Mineral Spring Between the Rivers

Friday July 28th Encamped on the north shore had a light sprinkle of rain at night daylight and a fresh of wind blowing, data as taken yesterday at a station down the valley 10 miles, Temp 61°

at 8 a.m. I started and ascended the lake opposite to some high table lands I wished to make observations upon. Landed and after ascending found table land which is about 12 or 14 feet above the lake, and had a rocky a rolling prairie to its elevation which I ascended about 80 feet below the top a sand & fossiliferous sandstone in place & above that yellow magnesian sandstone in thin strata some not fossils. Also is probably a stratum of sandstone divided in boards many diameters thick & very hard very magnesian and clay and everything I have seen. Some 2 miles S of station I am about a a singular isolated conical hill some about the size of a small grave in which at times some 100 or more feet is perfectly made of timber as some graves at the Ft and seems up as though as a keep to portend Fiber Ford, the country round back on a level with where I now stand. Ascended the next south and South and on both sides of the lake extensive low prairie & rock of same. Ascended I found the barometer stand here 1/10 inch lower than when I made my last observation at the shore of the lake which with 6 feet added for the distance of my last station above the water would give 380 feet as the elevation of the highest table land above Lake St Croix. at 12 o'clock noon Temp. 71. after observing in the usual manner on left stopping occasionally to sound in the bluffs of the aqueous sandstone for limestone of lead ore which is supposed to become heavy and plenty. Encamped for the night on the left shore 12 miles from the mouth. Ascended the height of table land last took of camp. 258 ft height. at 8 o'clock P. sprinkling rain. wind North west Temp 67°

Saturday July 29. Morning at 8 o'clock somewhat cloudy, rain during the night wind South west Temp 62. Started at 9 o'clock and came on up to table village 5 miles below Stillwater. Ascended the height of the table land last took of town 267 ft

fed by the Mess Room at 12. Wind S.S.W. 2
Fresh. 7 P.M. Came on up and anchored off Stillwater
at 9 P.M. Calm. at Sunset clouds. Wind E.
Fresh. 8 P.M. Completed our wood and water at the
Spring on the Island where we Encamped the 29th
Since we left this we have had great many
Showers night & day, the ground, are full of pools
of Water but cloud and the Sun would have
fallen down Dr Norwood and some found
Mr Randall and Dr Perry here. Learnt here
for the first time that Mr Randall had been
Robbed by the Savages.

Sunday Morning July 31st 5. A.M. Clear &
Fine Evening the night wind N. N. E. Fresh 8 P.

Falls St Anthony

Ft. Snelling

St. Pauls

Red Wing Village

Red Rock

2 m. Above the mouth St. Croix

Sandstone

Lower Sandstone

Lower part of Limestone

River from St. A. Falls to ab. St. Croix is South

Westward the mouth of the St. Croix the magnesian Limestone is seen at the water line and sometimes the entire hills, this is in part owing to the Eastings of the River and in part owing to a slight change of the dip of the Rocks- I think Falls Sand St outcrop S76. 12 Gy. Nav.

Sect 32

Section of metamorphosed Sand rock at mouth of Navagation on St. Peters

5 Limestone Bar

4

3

2

1

Stone

No 1. Red Sand, in thin strata ripple marked. No. 2. do more compact in thicker Strata worn full of Pot holes No. 3. Sandstone unchanged showing the rounded grains of quartz. No. 4. same vitrified very hard. No 5. vitrified Conglomerate. (pimple.)

Name of the chief at Fauxes des Sioux

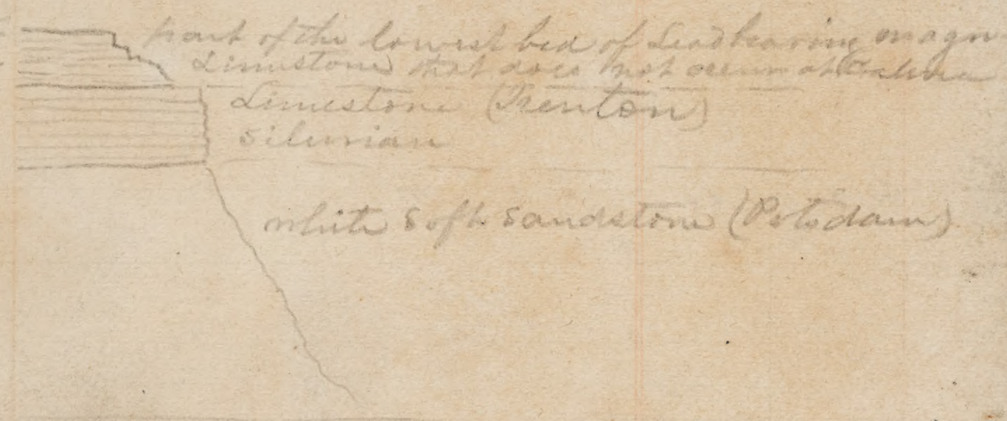
Muzzah Sha Metal red

Bot. Eng. Sioux

(Hizania Aquatica) wild rice - P. Sioux

(Sorabra Esculenta) wild Potator - Mdo (Pomme de Terre)

Section on miss. Riv 2 m. above St Snelling



Sioux Warhajoo - cotton wood R.

Trad. River aux Sioux.

Petit Rocher - little Rock

Sioux Watanwan - River where 3 Nations

Wind N.E.

Near shore

Temp 66

Red

7760
329
7431
7756
326